2025年直前講習

英語超長文読解対策

どのように取り組むか

令和７年１月２３日（木）

Fujimi Senior High School

■べからず！！

1. 英語の字面をうわべだけ急ぎ読みし、
   何が書かれているか理解していない

2. 全文をしっかり理解しようとし、
   時間がかかって読み終わらない

■英語の入試問題

70～80%わかれば、9割ねらえる！！

■こう読む！！

1. パラグラフごとに、何を主張したいのか、繰り返される語や表現を確実につかむ

2. パラグラフ内と全体の構成を理解する

   一般⇒主張　全抽象⇒具体(例)

   緩急をつけて読む

3. パラグラフとパラグラフのつながりを理解する

   最初⇒前パラグラフからの引継ぎ

   ⇒新情報(本パラグラフの主張)

■コロン「:」とセミコロン「;」

・[A]:[B]
  ・AをBが「説明」

・[A];[B]
  ・AとBは等しい形（文と文、語と語など）
  ・等位接続詞
    ・A and B
    ・A but B
    ・A or B
    ・A , for B ※文と文のみ

[1] It is easy to think that a new knowledge comes from new types 【一般論】

of apparatus — Galileo's telescope, Boyle's air pump, Newton's prism 【具体例】

— not from new intellectual tools. Often this is a mistaken view : in a hundred years time the randomized clinical trial* (streptomycin,1948) may look much more significant than the X-ray (1895) or even the MRI scanner (1973). New instruments are plain as pikestaffs*; new intellectual tools are not (pikestaffs). As a result we tend to overestimate the importance of new technology and underestimate the rate of production and the impact of new intellectual tools. A good example is 【具体例】

new types of apparatus / new instruments … plain, overestimate

Galileo's telescope, Boyle's air pump, Newton's prism

the X-ray (1895), the MRI scanner (1973)

new intellectual tools … much more important / not plain / underestimade

the randomized clinical trial (streptomycin,1948)

new intellectual tools. A good example is Descartes' (①) of using
【具体例】
letters from near the end of the alphabet (x, y, z) to represent unknown quantities in equations, or William Jones's introduction of the symbol π in 1706. Leibniz believed that the reform of mathematical symbols would improve reasoning just as effectively as the telescope had improved sight. Another example is the graph： graphs are now ubiquitous, so it comes as something of a shock to discover that they only began to be put to use in the natural sciences in the 1830s, and in the social sciences in the 1880s. The graph represents a powerful new tool for thinking. An absolutely fundamental concept, that of statistical significance*, was first propounded by Ronald Fisher in 1925. (②) it, Richard Doll would not have been able to prove, in 1950, that
【仮定法過去完了】
smoking causes lung cancer.

[2] Physical tools work very differently from intellectual tools.
⇔ intellectual tools

Physical tools enable you to act in the world: a saw cuts through
【説明】
wood, and a hammer drives home nails. These tools are technology-

dependent. The screwdriver only came into existence in the

nineteenth century, when it became possible to mass produce

identical screws; before that the few handmade screws that were
【but】
used were turned with the tip of a knife blade.

Telescopes and microscopes depended on pre-existing techniques for making lenses, and thermometers and barometers depended on pre-existing techniques for blowing glass. Telescopes and thermometers do not change the world around them as saws and hammers do, but they change our awareness of the world. They transform our senses. Montaigne* said that people can see only with their own eyes; when 【but】 they look through a telescope (which of course Montaigne never did) they still see only with their own eyes, but they see things they could never see with their unaided eyesight.

[3] Intellectual tools, by contrast, manipulate ideas, not the world.

They have (③) preconditions, not (④) preconditions. Some instruments are both physical and intellectual tools. An abacus* is a physical tool for carrying out complicated calculations; it enables you 【and】 to add and subtract, multiply and divide. It is perfectly material, but what it produces is a number, and a number is neither material nor immaterial. An abacus is a physical tool for performing mental work.

So too are the Arabic numerals we take for granted.

⇒ Arabic numerals, which we take for granted, are also tools for performing mental work.

So too are the Arabic numerals we take for granted. I write 10, 28, 【具体例】
54, not, as the Romans did, x, xxviii, liv. Arabic numerals are tools which enable me to add and subtract, multiply and divide on a piece of paper far more fluently than I could with Roman numerals. They are tools that exist as notations on the page and in my mind; like the 【and】
abacus, they transform the way I operate on numbers. The number zero (unknown to the Greeks and the Romans), the decimal point (invented by Christoph Clavius in 1593), algebra, calculus: these are 【説明】
intellectual tools which transform what mathematicians can do.

[4] Modern science, it should now be apparent, depends on ⑤a set of intellectual tools which are every bit as important as the abacus or algebra, but which, unlike the abacus, do not exist as material objects, and which, unlike Arabic numerals, algebra, or the decimal point, do not require a particular type of inscription. They are, at first sight, merely 「一見して」
words ('facts', 'experiments', 'hypotheses', 'theories', 'laws of nature', and indeed 'probability'); but the words encapsulate new ways of thinking. 「内包する」
The peculiar thing about these intellectual tools is that (unlike the intellectual tools employed by mathematicians) they are conditional, uncertain, imperfect; yet they make possible reliable and robust knowledge. ⇒Intellectual tools make reliable and robust knowledge possible.

They imply philosophical claims which are difficult, perhaps impossible, to defend, yet in practice they work well. They served as a passage between Montaigne's world, a world of belief and misplaced conviction, and our world, the world of reliable and effective knowledge. They explain the puzzle that we still cannot make a fistful bigger than a fist, or a stride longer than our legs can stretch, but that we can now know more than Montaigne could know. Just as the telescope improved the capacities of the eye, these tools improved the capacities of the mind.

[5] Alongside these intellectual tools we can see the emergence of a community accustomed to using them: the new language of science and

【説明】

the new community of scientists are two aspects of a single process, since languages are never private. What (⑥) was not just the new language, but a set of competitive and cooperative values which were expressed in the language used to describe the scientific enterprise (rather than in scientific arguments themselves), expressed in terms of discovery and progress and eventually institutionalized in eponymy*. What is striking about these intellectual tools and cultural values is that they have proved to have a history quite unlike that of paradigms.

【and】

Paradigms flourish; some then die, and others get relegated to introductory

パラダイムの一部が時代遅れや重要性の低下により、入門書などで紹介される基本的な知識や背景的な情報に格下げされる

textbooks. The new language and the new values of science have now survived for 300 years (500 years if we go back to their common origin in 'discovery'), and there is nothing to suggest they are likely to go out of fashion soon. Just like algebra and calculus, ⑦these tools and these values represent acquisitions which are too powerful to be discarded, and which remain not as museum pieces but are in constant use. Why? Because the new language and culture of science still constitute (and I believe will always constitute) the basic framework within which the scientific enterprise is conducted. Their invention is part and parcel of the invention of science.

■本スライドのダウンロード先

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※質問は上記の「英語超長文演習」の
「コメント欄」に書き込んでください